

PARAMAGNETIC BEAD TRANSFER WITH V&P SCIENTIFIC MAGNETIC PIN REPLICATORS

Magnetic Pin Replicators

Disinfecting:

The Replicators can be sterilized by hot air oven, autoclaving, treating in 10% bleach or alcohol flaming. The pins can be cleaned between source plates by dipping briefly in a 10% bleach solution, followed by a series of two sterile dH₂O baths (all in tip lid boxes), then a 99% Isopropanol bath in a non-flammable VP 420 glass reservoir. The pins can be air dried, using a hair drier or by flaming the Isopropanol. Between baths, remove the liquid from the pin tips by blotting on a lint-free blotting paper (VP 522), as lint from paper towels will interfere with uniform bead transfers. This blotting step is also very important to reduce carry over of solutions.

If you flame, do not blot the Isopropanol before igniting and be prepared for a "whoosh" upon ignition. Keep the Isopropanol reservoir and blotting paper at least 3 feet from the flame. We strongly advise you to use a non-flammable alcohol reservoir such as the VP 420 Pyrex® alcohol reservoir to avoid laboratory fires.

If you don't flame, blot on the lint-free blotting paper and let the Isopropanol evaporate. The evaporation can be speeded up with a hair dryer. It is important that the pins be dry before going into the next source plate.

Care:

Before each day's use we recommend that the pins be cleaned with VP 110 Pin Cleaning Solution, which is designed to clean stainless steel and condition the pins. If the pins should be coated with organic material they can be mechanically cleaned with the VP 425 brush and Ivory dish detergent. If you have access to an ultrasonic bath, we recommend using MICRO 90®, from Cole Parmer®, at a 1/100 dilution in the ultrasonic bath. If you use an ultrasonic bath, hold the Replicator in the bath without letting the pins touch the bottom of the reservoir (the vibrating bottom surface of the sonicator's reservoir may damage the pin tips). The Cole Parmer Catalog #P-08857-02 Ultrasonic Cleaner is ideal for cleaning the Replicators. It is not necessary to clean the replicators in an ultrasonic cleaner if you clean the pins with bleach and brush with detergent after each day's use.

Magnetic Loader Plate

Care:

Use care when handling powerful magnets! Keep the Magnetic Loader Plate away from electrical sockets. Avoid exposing your credit cards, computer discs etc. to these powerful magnets. The exterior case of the loader magnet may be cleaned with a soft cloth and a mild detergent.

Use:

1. Place a microplate with paramagnetic beads in it (source plate) onto the loading magnet.
2. Place the Magnetic Pin Replicator into the wells and move the pins around in a circular pattern to facilitate contact between the paramagnetic beads and the magnetic pins.
3. Slowly raise the magnetic replicator pins with the beads attached out of the source plate.
4. Place the magnetic replicator pins into a second microplate (recipient plate) containing liquid.
5. Turn on the demagnetizer.
6. Place the recipient plate with the Magnetic Pin Replicator in the wells on the surface of demagnetizer for 5 seconds, then remove.
7. Turn the demagnetizer off. Do not let it operate for over 5 minutes at a time as it will overheat.
8. Move the magnetic replicator pins up and down in the recipient plate, then remove slowly from wells.

NOTE: Do not turn the demagnetizer off with the plate on the surface. This re-magnetizes the pins causing the beads to load back onto the pins.